

Before the
Federal Communications Commission
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Revision of the Commission's Rules)
To Ensure Compatibility with) CC Docket No. 94-102
Enhanced 911 Emergency) RM-8143
Calling Systems)

SBC WIRELESS INC.
PETITION FOR WAIVER

SBC Wireless Inc., by its attorneys, files this Petition for Waiver of Section 20.18(c) of the Federal Communications Commission's rules, 47 C.F.R. § 20.18(c), as that section relates to the transmission of TTY devices using digital wireless systems. This Petition is filed on behalf of Southwestern Bell Mobile Systems, Inc., Southwestern Bell Wireless Inc., Pacific Bell and Nevada Bell Mobile Services, Springwisch Cellular Limited Partnership and SNET Cellular, Inc. (collectively "SBC Wireless") regarding the cellular and Personal Communications Service (PCS) licenses operated by SBC Wireless. The Petition is filed pursuant to the Wireless Telecommunications Bureau's November 13, 1998 Order setting forth specific procedures and guidance for carriers seeking further waivers of Section 20.18(c).

SBC Wireless is committed to efforts to assure that TTY customers can use their equipment to make wireless 9-1-1 calls and generally make use of digital wireless services and features. The initial technical difficulties associated with use of TTY devices over wireless digital technologies have been well documented in this proceeding. By working together, primarily through the Wireless TTY Forum initiated by the Cellular Telecommunications Industry Association (CTIA), the wireless carriers, equipment

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manufacturers, representatives of public safety organizations and affected consumer groups have identified and moved closer to solutions for the technical problems. In early November 1998, the Wireless TTY Forum's Workplan and Standard Test Procedures document ("Workplan") was finalized and submitted to the Commission. As the Workplan notes, the issues cannot be resolved in a technical vacuum but rather require the continued cooperation of the wireless industry (both carriers and equipment manufacturers), TTY manufacturers, the concerned consumer groups and the appropriate groups representing the public safety community.

SBC Wireless has participated in the Wireless TTY Forum and is committed to its continued success. SBC Wireless believes that continued cooperation by all parties will result in a technically acceptable solution satisfactory to our consumers. To that end, SBC Wireless has repeatedly expressed to the equipment manufacturers from which it purchases the importance of finding a technical solution as quickly as possible. SBC Wireless utilizes two digital technologies: TDMA in our cellular markets and our Tulsa PCS market and GSM in the PCS markets served by Pacific Bell and Nevada Bell Mobile Services. SBC Wireless thus is also an active participant in the GSM North America ("GSM-NA") and TDMA service providers work groups wherein TTY compliance is a primary issue.

While progress has been made, as indicated through the TTY Quarterly Reports, the TTY Workplan and Standard Test Procedures and various ex parte presentations, work still remains. The record in the proceeding to date seemingly would not support a finding that the requested action is "readily achievable" under a Section 255 analysis.

The Commission rules, however, require compliance and, thus, a waiver of the rules as they relate to digital technologies is necessary.

WAIVER REQUIREMENTS

In its TTY Waiver Procedures Order, the Wireless Bureau requires all wireless carriers to file individual waiver requests rather than relying on industry-wide waivers such as those filed in the past by the CTIA and the Personal Communications Industry Association (PCIA). The Wireless Bureau states that each waiver request must specify:

1. What steps the carrier is taking or intends to take to provide users of TTY devices with the capability to operate such devices in conjunction with digital wireless phones.
2. When the carrier intends to make this capability available to TTY users. This information should include well-documented timetables and milestones from the carrier regarding the implementation of this capability.
3. What reasonable steps the carrier will take to address the consumer concerns referenced in the September 30 Order.

A major concern for the wireless carriers is that the cart is not placed in front of the horse. The Wireless TTY Forum's Workplan and Standard Test Procedures was finalized and submitted to the Commission on November 9, 1998. It contains various proposed milestones for testing the various options and evaluating the test results. Likewise, as demonstrated in the Quarterly Reports, equipment manufacturers are still working to perfect solutions to the TTY-digital compatibility issue. The concern is that wireless carriers are seemingly being required to pick which solution will be implemented prior to solutions being perfected and prior to an opportunity to fully test and properly evaluate the various alternatives, including seeking input on the test results from the other various stakeholders participating in the TTY Forum. SBC Wireless does not believe that this is

the Wireless Bureau's intent. Rather, SBC Wireless views the continuing individual waiver requirements as a means for the Bureau to assure itself that progress toward acceptable interim and final solutions is taking place as quickly as possible and that the carriers are involved in pushing the process forward.

1. Steps Being Taken to Provide Users of TTY Devices With the Capability to Operate such Devices in Conjunction with Digital Wireless Phones.

The steps SBC Wireless is taking to provide TTY users with the capability to operate such devices in conjunction with digital handsets include: (1) its work on the Wireless TTY Forum and its support of CTIA in such endeavors; (2) its work in the GSM North America and TDMA service providers user groups; (3) evaluation of the specific alternatives set out in the Workplan and by specific vendors as set out in the TTY Forum reports; and (4) continued discussions with handset manufacturers regarding expedited development in this area and their progress. SBC Wireless is being assisted in its efforts by SBC Technology Resources, Inc. ("SBC-TRI"), the SBC Communications Inc. research and development subsidiary.

A primary concern for all involved should be that the solution works not only on the consumer's home system but also on any technology compatible (e.g., TDMA, GSM, and CDMA) system on which the consumer roams. Thus, coordination of the industry is a key component. SBC Wireless is participating in GSM-North America meeting the week of December 7, 1998 with a half-day of the meeting being scheduled to discuss the TTY compatibility issue, testing, the Workplan and specific alternatives. A similar meeting of the TDMA service providers is also being scheduled.

SBC Wireless and SBC-TRI will be evaluating the various test results presented to the Wireless TTY Forum, the test results and evaluations of the various user groups and the test results and evaluations of individual manufacturers and any new advances. SBC Wireless will also be assisting in the tests, in addition to providing input. SBC Wireless is providing TDMA handsets and free airtime to Gallaudet University for testing in conjunction with the Forum. The goal of such tests is to provide users (under research supervision) the opportunity to experience TTY transmission over a digital wireless interface, to gather qualitative information about their experience with it and to document some quantitative information on error rate in field conditions as a comparison with wireless results. Delivery of the phones was scheduled for the week of November 30, 1998. The University is planning on publishing the results in contributions to the TTY Forum.

GSM-NA requested that all the GSM handset manufacturers perform TTY compatibility testing as per the procedure given in TTY Standard Test procedures before January 15, 1999. Once the test results are available, SBC Wireless will be evaluating the tests performed by the various vendors. After this evaluation, SBC Wireless will schedule further testing to verify equipment performance on our networks before offering the service to consumers.

A primary concern regarding the evaluation of the tests is that a specific standard as to an acceptable error rate has not been defined. The Consumer Concerns referenced in the September 30, 1998 Order indicate that an error rate of 1% or less, similar to that achieved using analog, is desired. A threshold question in evaluating the various

alternatives is whether an error rate of 1% or less is necessary for the test to be deemed successful.

In addition to considering the alternatives proposed in the Workplan and those of the particular vendors as outlined to the TTY Forum, SBC Wireless and SBC-TRI has challenged its employees to "brainstorm" for any other interim and long-term solutions. SBC Wireless is currently investigating two other possible alternatives in addition to its work through the TTY Forum and the various user groups.

One interim proposal was conceived by the analogy to when a wireless computer modem is plugged into a certain type of dual mode phone -- the phone automatically switches to an analog voice channel. The goal of this proposal would be to combine all the features of digital with the ability to send and receive the TTY signal over an analog channel, thus avoiding the vocoder and taking advantage of the lower error rate. Pursuant to the proposal, all digital features such as longer battery life, paging capability and short messaging would function, the only difference being that, like the wireless modem scenario, the TTY signal would be sent over an analog channel -- something that would be transparent to the user. SBC Wireless is currently socializing this idea with manufacturers to see if it would be feasible. Given the fact that some digital wireless phones perform such functionality today with wireless modems and that some digital phones can be set to accept only an analog voice channel while keeping all other digital functionality, SBC Wireless and SBC-TRI feel that such a proposal might have some merit. Again, the equipment manufacturers are in the best position to determine technical feasibility and exactly what modifications might be needed. SBC Wireless is in

the process of setting up meetings with our manufacturers for updates on their progress regarding TTY compatibility in general and will query them about what it would take to provide such functionality.

SBC-TRI is also exploring whether there may be an alternative using a modem similar to that being used in the amateur radio community today which supports Baudot, AMTOR and AX.25 all in the same box. AMTOR and AX.25 offer error-correcting capabilities and are more reliable than Baudot. Conceivably, such a device might be able to be configured to automatically detect what format is being received. This would help alleviate concerns regarding the compatibility of home and Public Safety Answering Point (PSAP) TTY equipment to support the newer more robust technologies. At the subscriber's homes and at the PSAP's, the modem could detect current Baudot-TTY signals as well as the more robust and advanced signals, thus providing backwards compatibility to current Baudot-TTY technologies. A major advantage of such a solution would be that it would offer a wireless technology independent solution for roaming purposes. Such a solution would also seemingly meet the consumer concerns that the landline party's TTY not require retrofitting to meet the desired error rate and the understanding that the wireless party may require a retrofitted TTY or use of a portable data terminal. Obviously, this alternative is still in the extreme preliminary stages and is still being researched by SBC-TRI. If it is deemed to have some possible merit it will be shared with the Wireless TTY Forum for consideration.

SBC Wireless is also investigating possible European GSM TTY solutions. SBC Wireless has a meeting scheduled for December 8, 1998 with representatives from a European company to investigate possible alternatives.

Again, SBC Wireless emphasizes that it is looking at these alternatives in addition to working with the various groups on testing and evaluating the alternatives as set forth in the Workplan and proposed by the various manufacturers. Obviously, if any of these additional alternatives are deemed to be feasible information will be shared through the working groups and the TTY Forum.

2. Time Tables and Milestones

SBC Wireless is committed to delivering accurate TTY access over digital technology as soon as it is technically feasible. Again, SBC Wireless emphasizes that an industry wide, or at least a technology specific industry wide (e.g., TDMA, GSM, CDMA), solution that enables roaming is in the best interest of all involved. Such a solution requires continued coordination, testing and evaluation. Selection of any specific alternative requires time for testing and evaluation. Wireless carriers are in a difficult position to state a date specific for compatibility when testing of the various alternatives has not yet been completed and evaluated and they are not the manufacturers of the equipment. A wireless carrier's inability to state a specific date for implementation should not be deemed a lack of commitment to the cause but rather the reality of the situation. What is important is that the wireless carriers, manufacturers and consumer groups are vigorously and expeditiously working toward solutions, as has been the case. SBC Wireless believes that the milestones provided indicate such commitment.

Milestones for various alternatives discussed in the TTY Forum are set forth in the Forum's Workplan. The GSM-NA group is meeting the week of December 7, 1998 and will discuss TTY compatibility, testing and the various alternatives. GSM-NA requested that all the GSM handset manufacturers perform TTY compatibility testing as per the procedure given in TTY Standard Test procedures before January 15, 1999. Once the test results are available SBC Wireless will be scheduling further testing in various SBC Wireless markets. A similar meeting for TDMA service providers is also scheduled along with testing. As previously noted, SBC Wireless is providing equipment and free airtime to Gallaudet University for a six-month test. The equipment was to be delivered the week of November 30, 1998.

Contacts have been made with the vendor community regarding the possible interim solution of the dual mode phone combining all digital features with the flexibility to assign the TTY signal to an analog channel thus avoiding the vocoder. SBC Wireless is attempting to set up meetings for December 1998 to further socialize the concept, gain input and receive an update on our joint commitment for an expeditious resolution of the TTY-digital compatibility issue. SBC-TRI has also been charged with further investigation of the possible multiple function modem solution.

3. Reasonable Steps to Address the Consumer Concerns Referenced in the September 30 Order

A matrix indicating compliance with the specific Consumer Concerns for the various alternatives outlined in the Workplan is included in the Workplan. As solutions become perfected it is seemingly everyone's goal to attempt to address as many, if not all,

the consumers' concerns if possible. SBC Wireless believes that the consumer conditions provide a good template of what a consumer expects from a TTY solution and is thus a development blueprint for TTY solutions. Obviously, all digital carriers are required to comply with the Commission's rules and those that comply in the most customer-friendly manner will gain the most customers. SBC Wireless thus takes the consumer concerns to heart in discussions with its equipment manufacturers and, in evaluating the various alternatives, believes the same would be true of any responsible success oriented carrier.

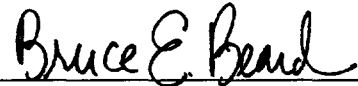
CONCLUSION

The ability to deliver consumer acceptable TTY transmissions over digital technology is not yet technically feasible. As demonstrated herein for SBC Wireless, and as demonstrated in the Quarterly Reports of the TTY Forum, the Workplan and the various pleadings and ex partes documents filed in this docket, the industry and all parties involved are working diligently and expeditiously to achieve TTY-digital wireless compatibility solutions. The fact remains, however, that the Commission's rules require such compatibility for 911 call purposes.

Thus, SBC Wireless requests a waiver of Section 20.18(c) of the Commission's rules, 47 C.F.R. § 20.18(c), as it relates to the transmission of TTY devices using digital wireless services.

Respectfully submitted,

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DATED: December 4, 1998